conduit of 240 Mbps between those components 34, 36. However, the switch router 32 is communicating at wire speed with network components in levels 2-4.

[0052] It is noted that it would take an OC-3 connection to the Internet for the input to the Open IP Services Platform 30 to exceed the processing throughput capabilities of the CPU used in the preferred embodiment. The OC-3 type of connection is uncommon to most businesses, and thus the present invention is going to handle almost all connection scenarios without becoming a bottleneck.

[0053] Figure 4 is a block diagram that is provided to give greater detail to the configuration of the Open IP Services Platform 30. The CPU 34 is preferably a single board computer (SBC) operating with an INTEL(TM) chipset. However, any INTEL(TM) compatible CPU can be easily substituted, such as a CPU from AMD(TM). The preferred microprocessor for the SBC 34 is an INTEL(TM) PENTIUM(TM) III. However, the software of the Open IP Services Platform can be optimed for other processors as well, such as the Pentium 4(TM).

[0054] The SBC 34 communicates with memory in the form

of SDRAM DIMMs 38, and possibly an array of hard drives/flash drives 40. The hard drives/flash drives 40 are optional, depending upon the needs of the network or of the network components being incorporated into the Open IP Services Platform 30, as will be explained.

[0055] The switch router 32 is shown coupled to the SBC 34 via the PCI bus 36. The switch router 32 has also been labeled as a network accelerator to more fully describe its function. The switch router 32 is shown as providing the port connections to external networks via the Gigabit Ethernet Fiber (GBIC) Ports 42, 10/100 Mbps Ethernet (Base T) Ports 44, PCMCIA Expansion Ports 46, and additional PCI Expansion Slots 48.

[0056] The PCI Expansion Slots 48 are designed to receive the hardware of the network function being installed. In other words, a third party network function card is installed in one of the PCI Expansion Slots 48, enabling the Open IP Services Platform 30 to function as a load balancer, a firewall, etc.

[0057] It is also noted that optional cards 50 can also be installed into the PCI Expansion Slots 48. These optional cards can include such functions as OC-3, DSL

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modem, T1/E1 termination, and SCSI RAID. Thus it is seen that the Open IP Services Platform 30 is not fixed in its configuration or its function.

[0058] Figure 5 is a block diagram of the software architecture of the present invention. The Operating System 52 is preferably one that has an open architecture. This selection of an open architecture OS was made so that the system administrator is given the ability to modify the operating system itself, if necessary, in order to obtain the desired functionality of the invention that can only come through customization, without having to depend on others to provide the desired capabilities.

[0059] Another advantage of utilizing an open architecture OS is that some users will want to drop their own software into the Open IP Services Platform 30. Unfortunately, this flexibility also enables users to write code that can potentially interfere with the other functions in the Open IP Services Platform 30. Advantageously, utilizing the complete OS provides memory management capabilities that prevents third party software from jeopardizing the operation of any other network functions taking place. For example, protected memory can